

ABSTRACT

The present invention manages power for state machines. The system and methods selectively apply, remove and/or reduce power to portions of the state machine, based on power management schemes, intelligence, a user, an application, *etc.* Such novel systems and methods provide for sustaining a CPU and/or a network radio in an “on” state, while lowering and/or removing power to other portions of the state machine to reduce power consumption. The foregoing enables a wireless mobile terminal to maintain network connectivity and be able to wake to service events such as a link status change, a network keep alive, a proxy-ARP packets, a re-authentication packets, *etc.* Such power management can execute in the background and return the wireless mobile terminal to a “run” state *via* invocation from a wake source such as a power control, a key, a trigger, a touch screen, a wake up timer, a wake-on-LAN, *etc.*